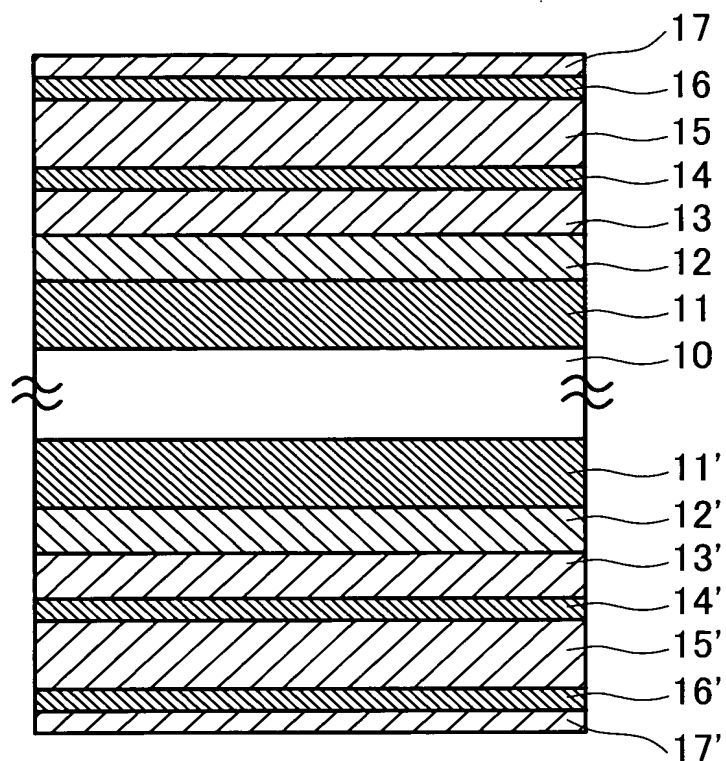
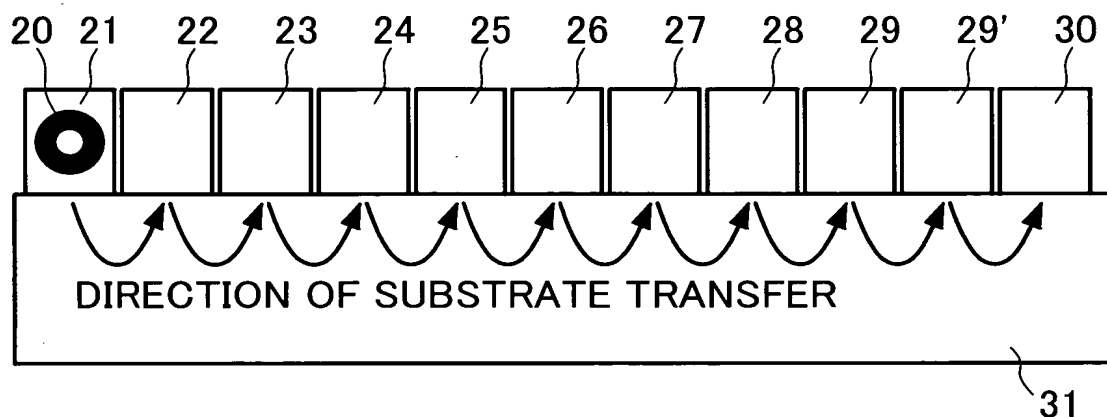


FIG.1



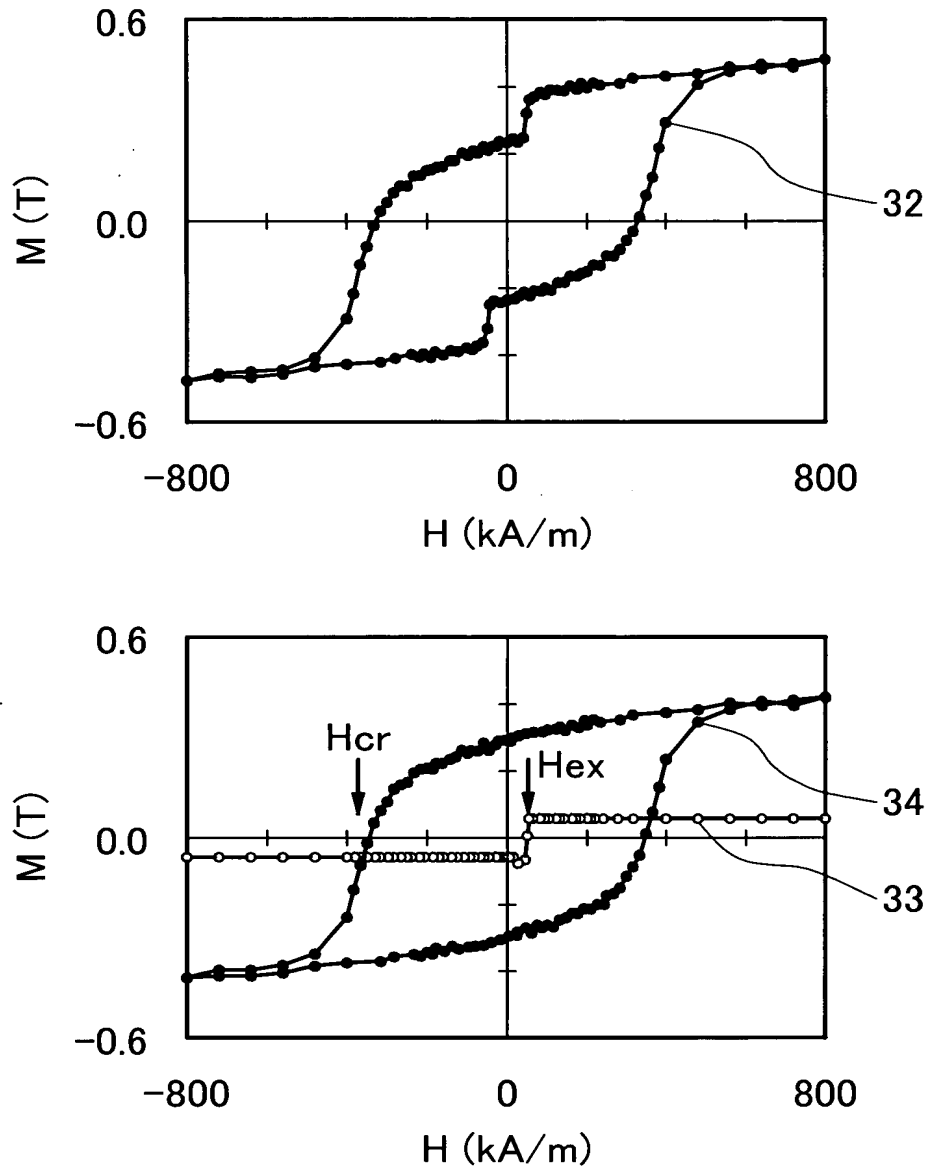
- 10 .....SUBSTRATE  
 11,11'...SEED LAYER  
 12,12'...UNDER LAYER  
 13,13'...THE FIRST MAGNETIC LAYER  
 14,14'...NON-MAGNETIC INTERMEDIATE LAYER  
 15,15'...THE SECOND MAGNETIC LAYER  
 16,16'...PROTECTIVE LAYER  
 17,17'...LUBRICANT LAYER

FIG.2



- 20...SUBSTRATE  
 21...LOAD-LOCK CHAMBER  
 22...SEED LAYER FORMING CHAMBER  
 23...HEATING CHAMBER  
 24...UNDERLAYER FORMING CHAMBER  
 25...UNDERLAYER FORMING CHAMBER  
 26...MAGNETIC LAYER FORMING CHAMBER  
 27...NON-MAGNETIC INTERMEDIATE LAYER FORMING CHAMBER  
 28...MAGNETIC LAYER FORMING CHAMBER  
 29,29'...PROTECTIVE LAYER FORMING CHAMBER  
 30...UNLOAD-LOCK CHAMBER  
 31...MAIN CHAMBER

FIG.3

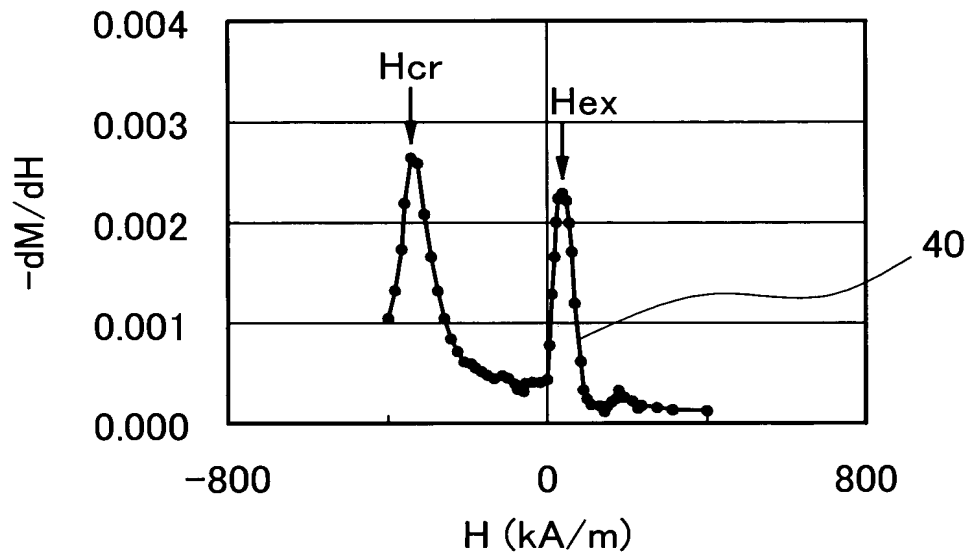


32...MAGNETIZATION CURVE

33...MAGNETIZATION CURVE OF THE FIRST MAGNETIC LAYER  
WHICH IS OBTAINED WITH THE MAGNETIZATION CURVE 32

34...MAGNETIZATION CURVE OF THE SECOND MAGNETIC LAYER  
WHICH IS OBTAINED WITH THE MAGNETIZATION CURVE 32

FIG.4



40...CURVE WHICH IS OBTAINED BY DIFFERENTIATING  
THE MAGNETIZATION  $M$  BY THE MAGNETIC FIELD  
 $H$  ON THE MAGNETIZATION CURVE 32

FIG.5

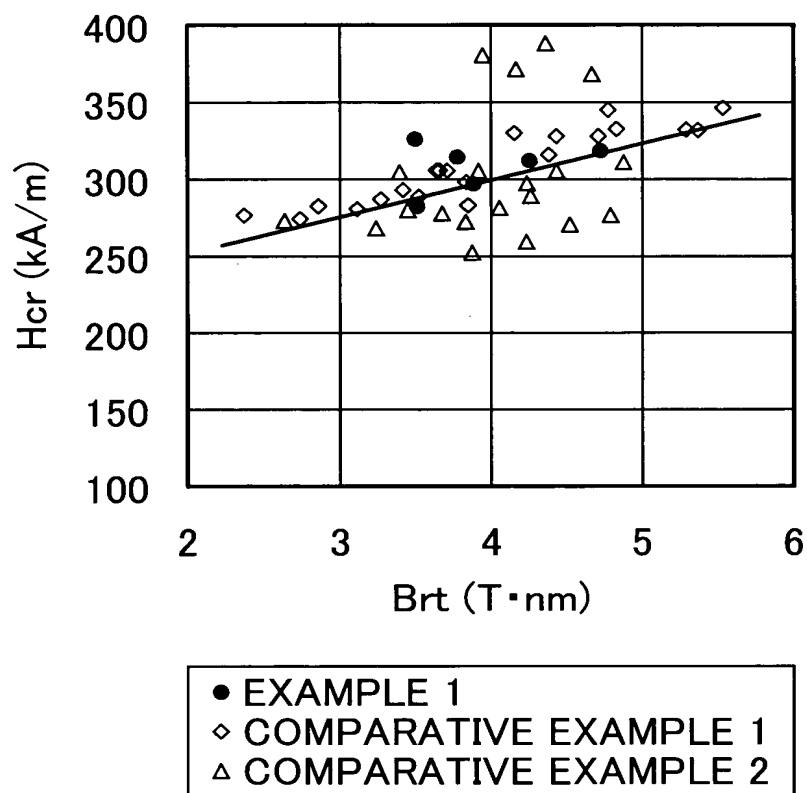


FIG.6

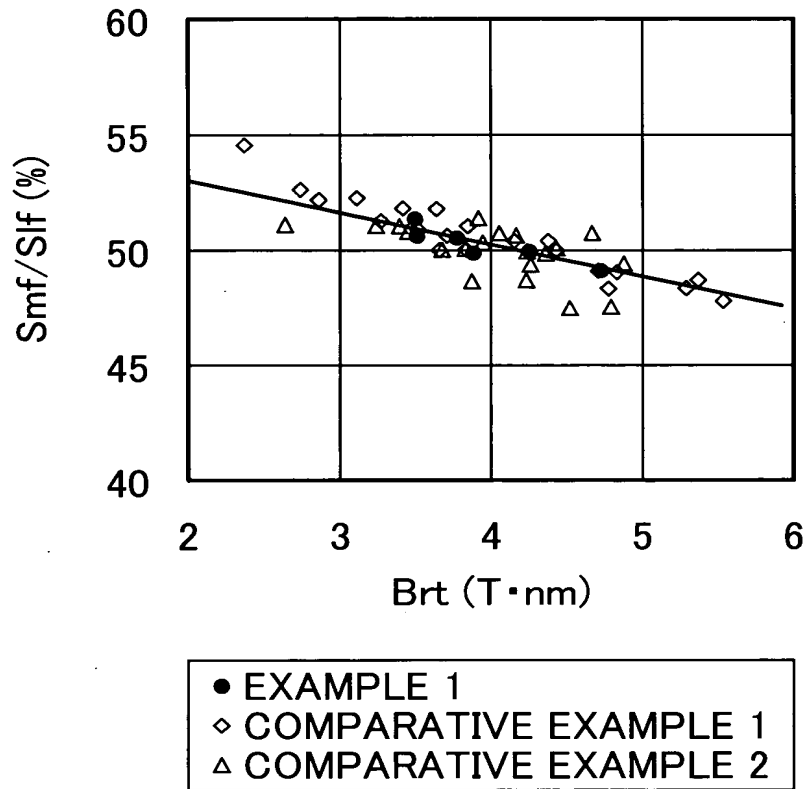


FIG.7

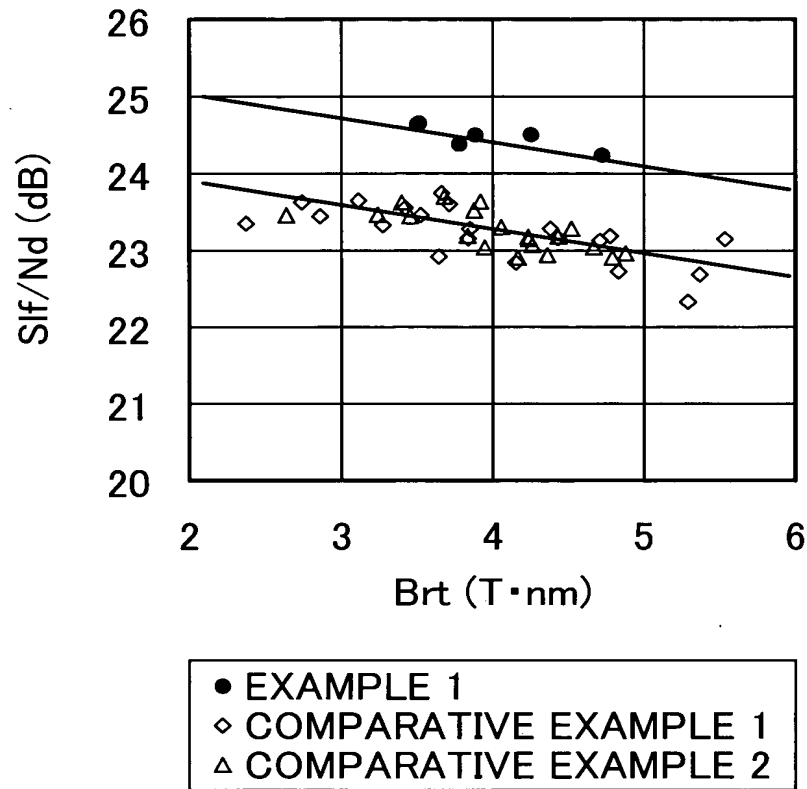


FIG.8

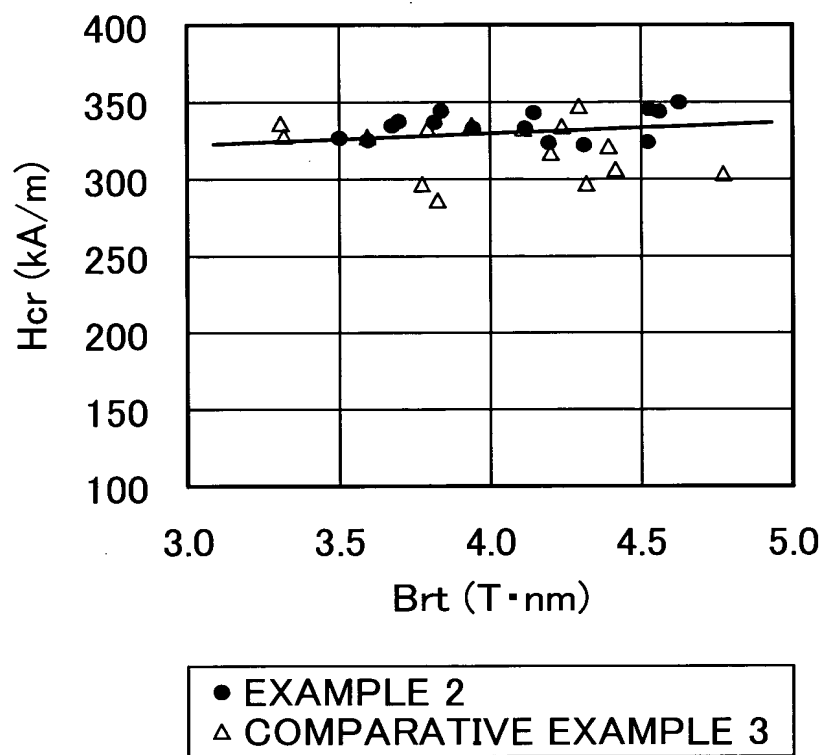




FIG.9

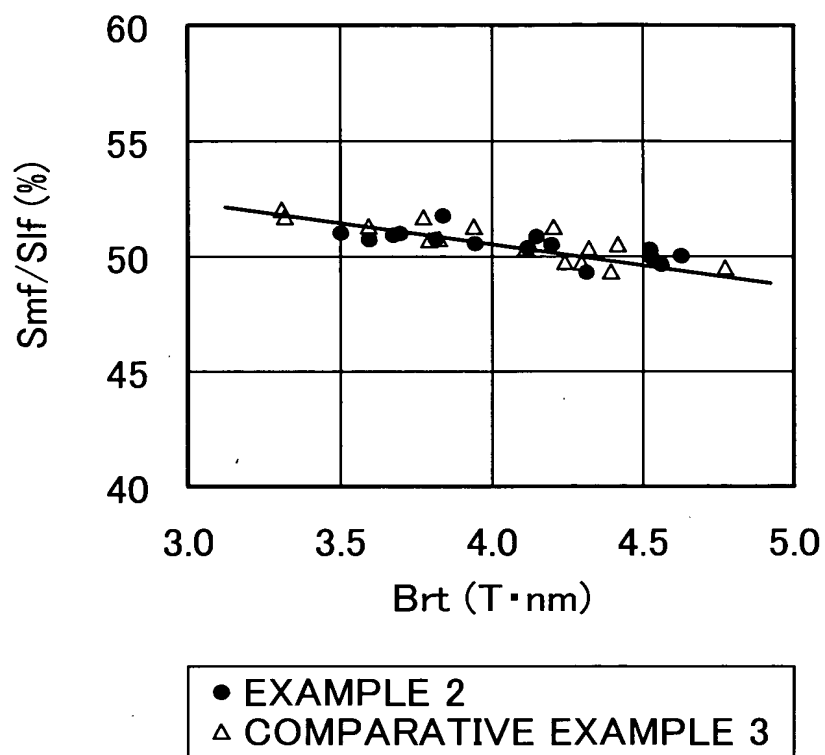


FIG.10

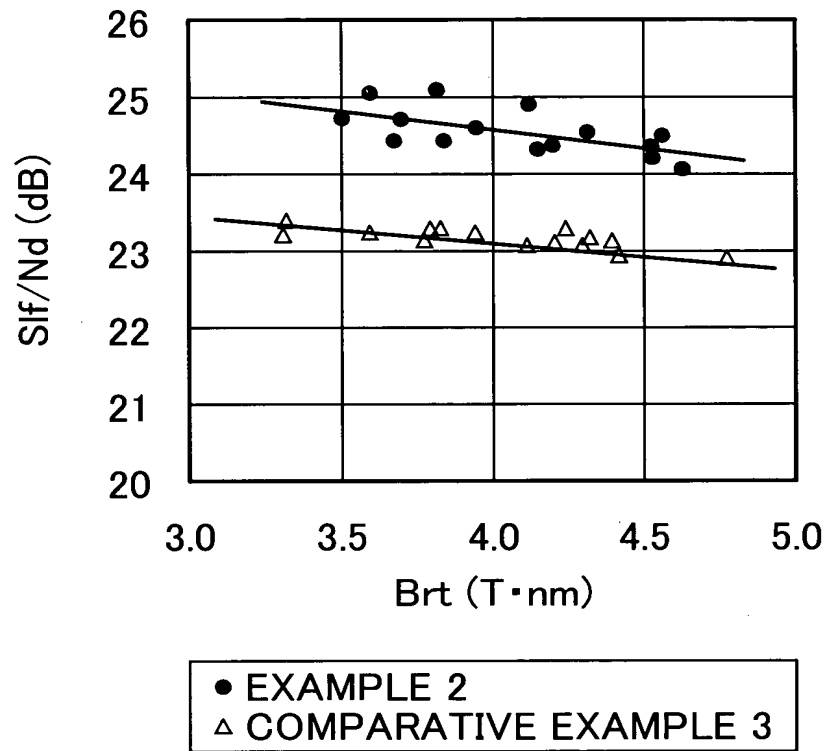


FIG.11

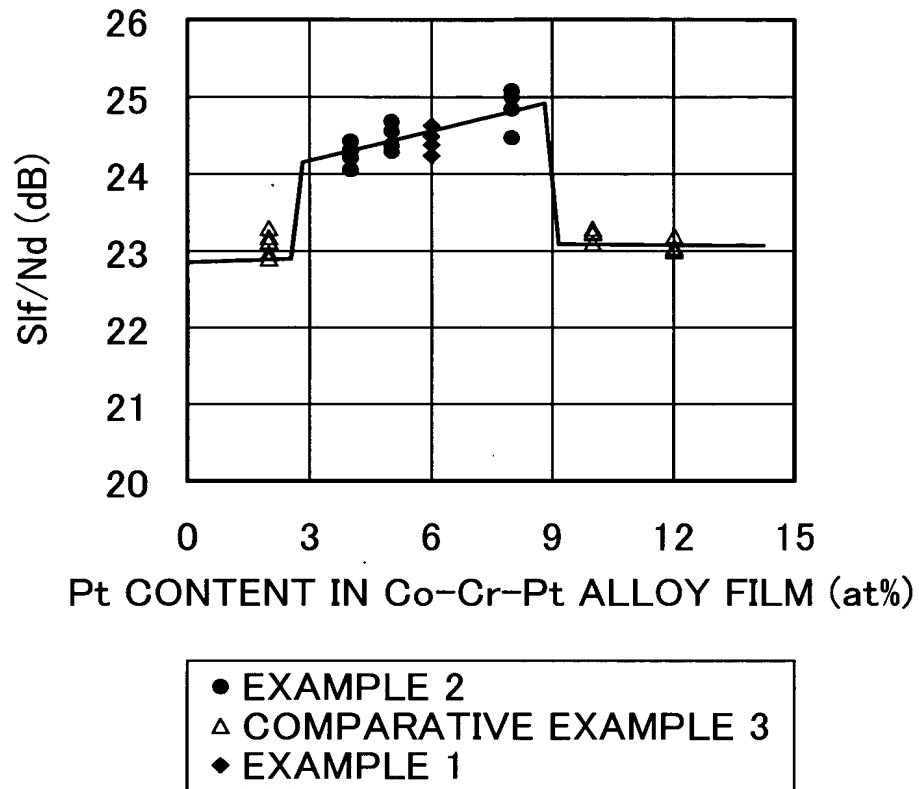


FIG.12

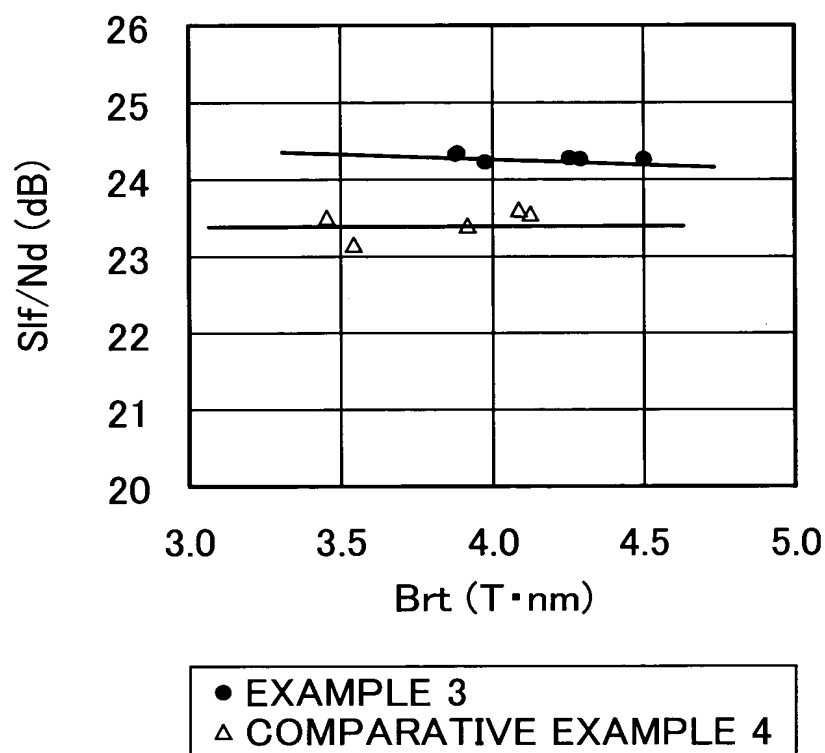


FIG.13

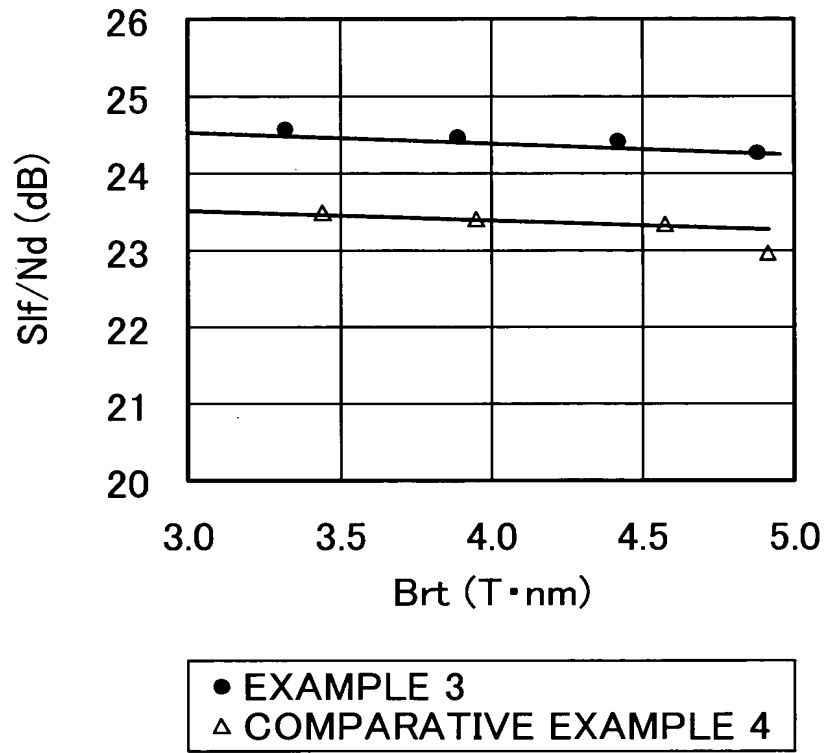


FIG.14

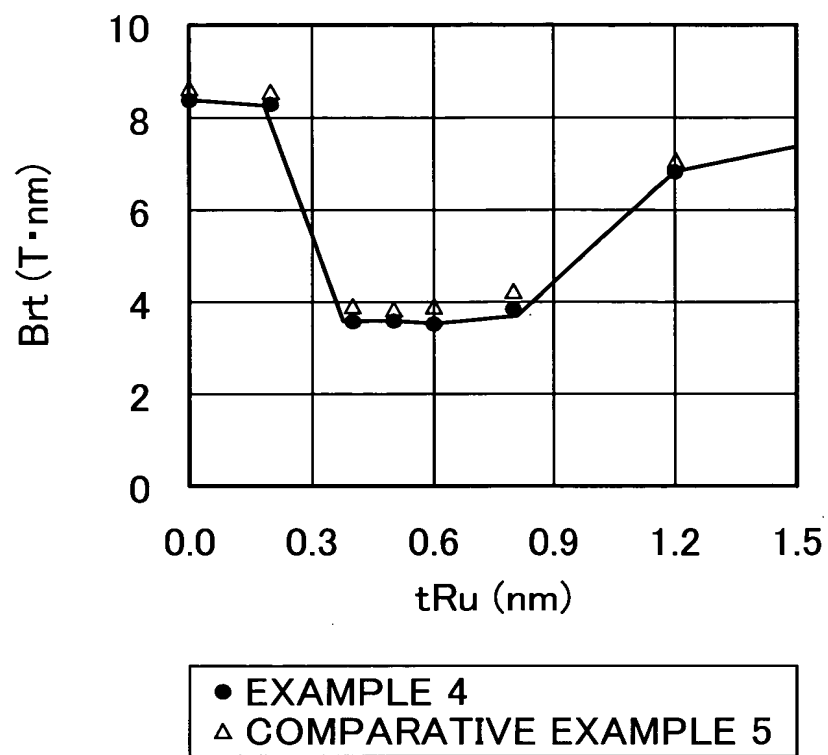


FIG.15

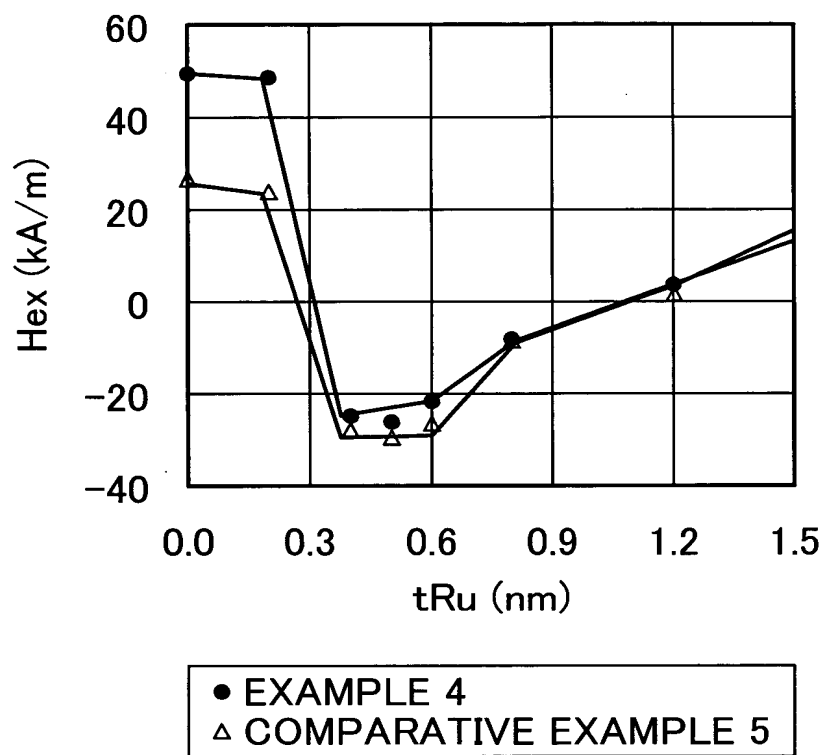


FIG.16

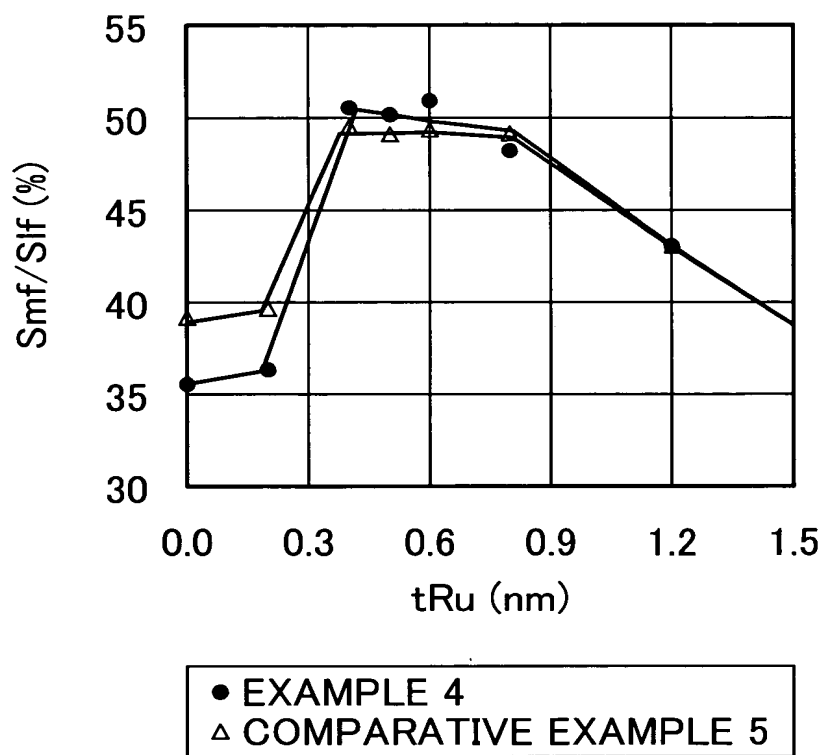




FIG.17

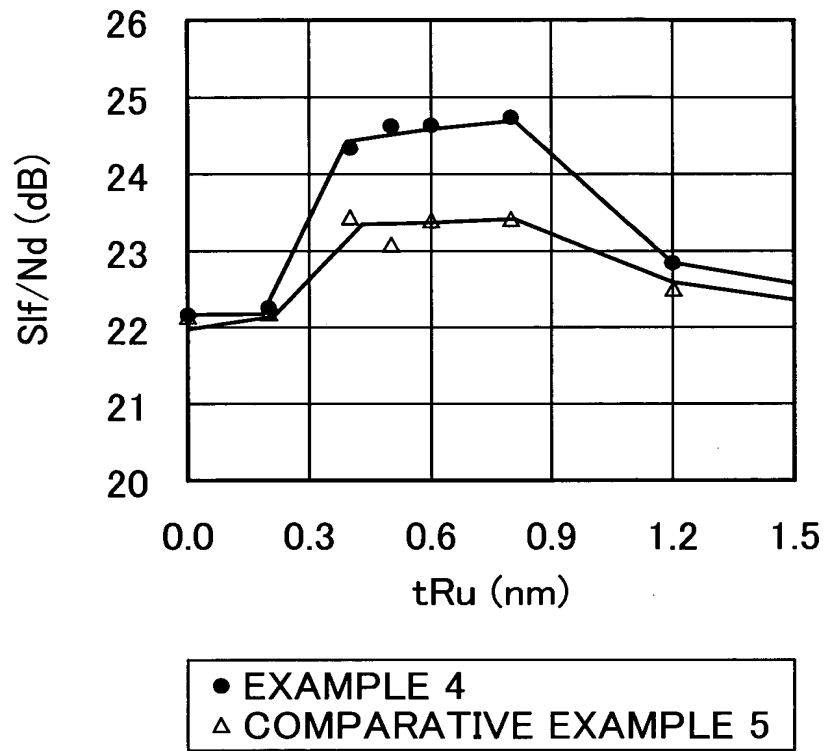
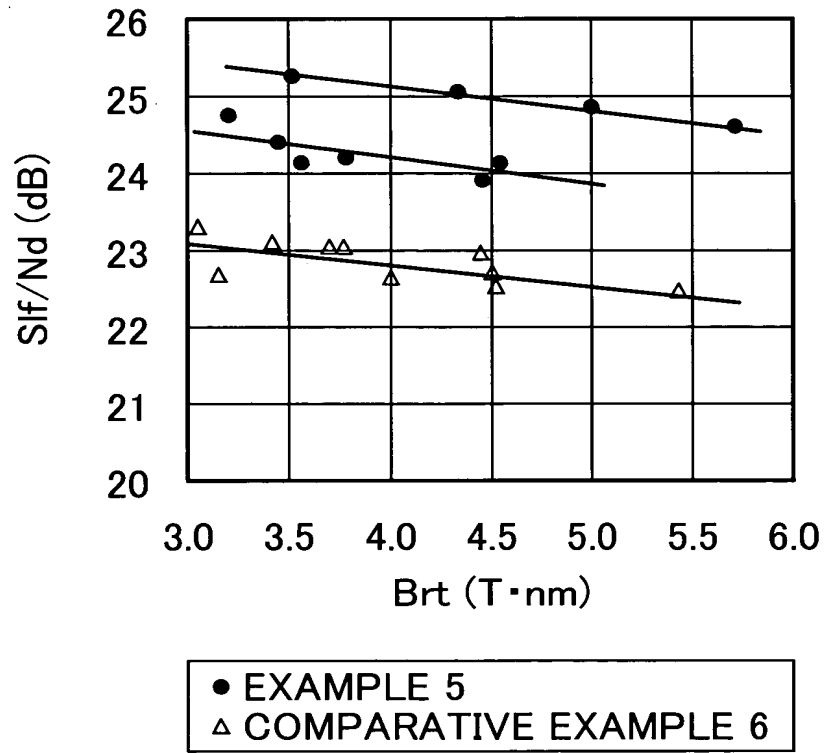
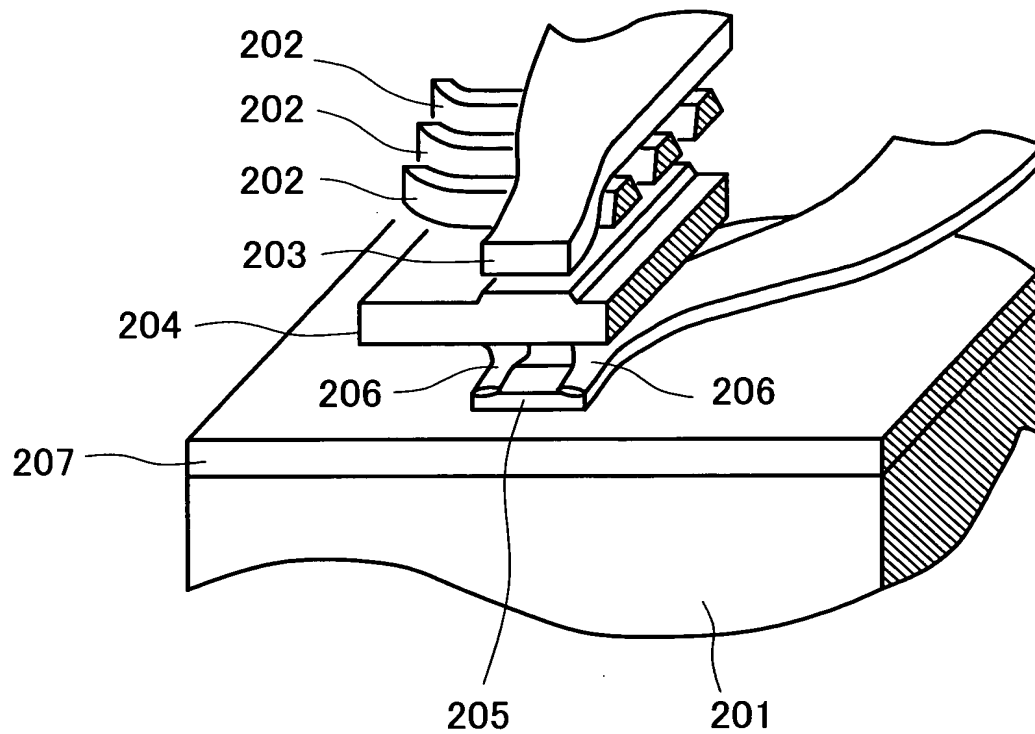


FIG.18



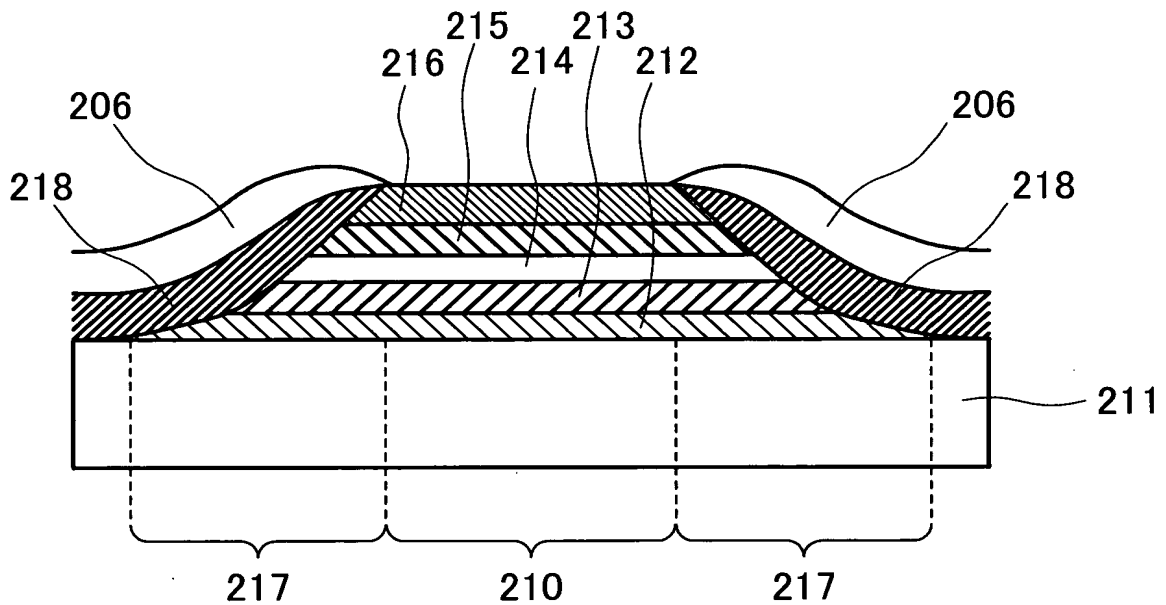
- 191...MAGNETIC RECORDING MEDIUM  
192...DRIVING UNIT FOR ROTATING THE MAGNETIC  
RECORDING MEDIUM  
193...MAGNETIC HEAD  
194...HEAD ACCESS SYSTEM FOR DRIVING  
THE MAGNETIC HEAD  
195...WRITE/READ SIGNAL PROCESSING MEANS  
196...HEAD UNLOADING MECHANISM

FIG.20



- 201...SUBSTRATE  
202...COIL  
203...UPPER MAGNETIC POLE  
204...LOWER MAGNETIC POLE/UPPER SHIELD LAYER  
205...MAGNETORESISTIVE SENSOR  
206...ELECTRODE PATTERN  
207...LOWER SHIELD LAYER

FIG.21



- 210...SIGNAL SENSING REGION
- 211...GAP LAYER
- 212...Ta BUFFER LAYER
- 213...FIRST MAGNETIC LAYER
- 214...INTERMEDIATE LAYER
- 215...SECOND MAGNETIC LAYER
- 216...ANTIFERROMAGNETIC ALLOY LAYER
- 217...TAPERED PORTION
- 218...PERMANENT MAGNETIC LAYER

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